AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES 1 * 8

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (*If applicable*)
PR-CI-04-10739/0001		PR-CI-04-10739	

6. ISSUED BY	CODE	7. ADMINISTERED BY (*If other than item 6*)	CODE
Environmental Protection Agency Contracts Management Division 26 W. Martin Luther King Drive Cincinnati, OH 45268		Not Applicable.	

8. NAME AND ADDRESS OF CONTRACTOR (*No., street, county, State and ZIP Code*)	(✓)	9A. AMENDMENT OF SOLICITATION NO.
To All Offerors/Bidders.		PR-CI-04-10739
	✓	9B. DATED (*SEE ITEM 11*) 05/25/04
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (*SEE ITEM 13*)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [ ] is extended, [X] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(✓)	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (*Specify authority*) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (*such as changes in paying office, appropriation date, etc.*) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	c. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (*Specify type of modification and authority*)

E. IMPORTANT: Contractor [ ] is not, [X] is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (*Organized by UCF section headings, including solicitation/contract subject matter where feasible.*)

The purpose of this amendment is to correct an error in section 2.3.2 of the performance work statement.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (*Type or print*)		16A. NAME AND TITLE OF CONTRACTING OFFICER (*Type or print*)	
		MATTHEW J. GROWNEY	
15B. CONTRACTOR/OFFEROR	15C DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(*Signature of person authorized to sign*)		(*Signature of Contracting Officer*)	

NSN 7540-01-152-8070 30-105 STANDARD FORM 30 (REV 10-83)
PREVIOUS EDITION UNUSABLE Prescribed by GSA
FAR (48 CFR) 52.243

AMENDMENTS TO THE SOLICITATION

The first statement at Section 2.3.2 has been corrected to require an absolute humidity of 5-7 grains per cubic ft. of dry air. No other changes or corrections are made by this amendment.

1. The attachment entitled "STATEMENT OF WORK" has been modified. The text is as follows:

PERFORMANCE WORK STATEMENT

EPA Filter Weighing Room Control Modification

1.0 Introduction:

The EPA requires a modification to the air conditioning and air handling system for an existing weigh-room to meet requirements of the 2007 regulations for heavy-duty diesel fueled vehicles (40 CFR §86.1312-2007). The weigh room is located in the large soak area of the laboratory building at the National Vehicle and Fuel Emissions Laboratory, Ann Arbor Michigan. The present HVAC is a 5 ton CoolAir unit employing condenser/compressor cooling and flash vaporization humidification. All structures shall conform to the guidance provided by the EPA facilities manual, Vol. 4, "Architecture, Engineering and Planning Guidelines," used in conjunction with EPA Manual 4844, "Facility Safety and Environmental Management Manual," attached. The site of the structure is indicated in the picture of Appendix A.

2.0 Technical Specifications:

2.1 Structure

2.1.1 The existing structure shall be used with only nominal modifications for ducting alterations.

2.1.2 Existing suspended HVAC mechanical area shall be used for the new hardware.

2.1.3 Existing ducting shall be reused as feasible or newly supplied as necessary for the upgrade equipment.

2.2 Filtration

2.2.1 Existing HEPA room filtration media shall be replaced by ULPA filter media (ultra low particulate air filtration system; removal of 99.999% of particulates of size 0.12 microns or greater).

2.2.2 The Weigh room shall maintain its Class 1000 rating (1000 particulates of size ≥ 0.3 microns; 350 particulates of size ≥ 0.5 microns; and 0 particulates of size ≥ 5 microns are the maximum numbers permitted per cubic meter of air).

2.2.3 The room must be maintained at a minimum of 15 Pa higher air pressure within the Class 1000 room as compared to the adjoining unclassified area.

2.2.4 As a required option, the filtration system shall provide for air scrubbing for volatile organic compounds (VOCs), especially compounds in gasoline mixtures.

2.2.4.1 For dry-scrubbing of (VOCs), the air filter system shall contain chemically impregnated media with the ability to reduce organic gases and odors in the intake and recycled air to a level < 1 ppm before it is introduced to the weigh-room.
2.2.4.2 Filtration system must be designed so that filter media is easily replaceable.
2.2.4.3 Filter media must have color change indicator or some other indicator to signal when the media needs to be changed.

2.3 HVAC and Filter Room Control System (FRCS)

2.3.1 The control of the new HVAC System shall be based upon an advanced Proportional/Integral/ Differential controller (PID). The system shall cool constantly with PID controlled reheat/preheat and constantly dehumidify with PID controlled humidification. The following are considerations for determining what HVAC Hardware shall be supplied:

2.3.1.1 The HVAC shall be a water-cooled system per facility management choice
2.3.1.2 The HVAC shall incorporate continuous, proportional control for temperature and humidification employing a (PID) controller. This shall be implemented using either a separate Programable Logic Controller (PLC) supplied by the contractor, a separate program module incorporated into the existing EPA weighroom computer system, or a separate computer system supplied by the contractor.
2.3.1.3 Electrical service and plumbing sources/drains are to be brought to the immediate HVAC area by EPA building maintenance or another contractor.
2.3.1.3 The HVAC system shall not emit noise greater than 70 decibels in any direction at a nominal distance of 10 feet from the unit.

2.3.2 The HVAC shall be installed in the large soak area that is maintained at a temperature range of 68 to 86°F with an absolute humidity of 5-7 grains per cubic ft. of dry air. The HVAC shall reject heat to the provided chilled water which is supplied at a temperature of

42 to 55 °F at a pressure of 10 to 20 psi. For reheat, building hot water may be used. This is supplied at 125 to 170 °F and has a hardness of 45 grains with PH over 9.2. Target control parameters are as follows:

2.3.2.1 Temperature Monitor
Resolution = 0.01 ˚C
Accuracy = ±0.2 ˚C (with k = 2 at a 95% confidence interval)

2.3.2.2. Dew point Monitor
Resolution = 0.01 ˚C
Accuracy = 0.25 ˚C (with k = 2 at a 95% confidence interval)

2.3.2.3 Recovery response time to a temperature or dewpoint excursion of 5 ˚C shall be a maximum of 2 minutes.

2.3.2.4 Heat load in the room will consist of 4 technicians and 2 computers plus environmental monitors and controllers. The people will be moving in and out the filter room for any duration of time over a 24 hour period. .

2.3.3 Contractor Supplied Environmental Control System - The filter room environmental control system, FRCS, shall be selected by the contractor but must meet EPA performance criteria listed in sections 2.3.2.1 through 2.3.2.3. If a computer system is selected by the contractor, the system must meet EPA's interfacing requirements with the existing Filter Room Monitoring System (FRMS).

2.4 Environmental Control

2.4.1 Room and Balance Temperature

2.4.1.1 The environment shall be maintained at 22 ˚C ± 1 ˚C.

2.4.1.2 Temperature shall be sampled 1 per second and an unweighted 5 minute moving average of this data shall be graphically recorded.

2.4.2.3 The monitoring and control device shall be NIST traceable and accurate to at least ±0.2 ˚C (k=2, 95% confidence).

2.4.2 Room Balance Dew point

2.4.2.1 The environment shall be maintained at a dew point of 9.5 ˚C ± 1 ˚C.

2.4.2.2 The dew point shall be sampled 1 per second and an unweighted 5 minute moving average of this data shall be graphically recorded.

2.4.2.3 The monitoring and control device shall be NIST traceable and accurate to at least ±0.25 ˚C (k=2, 95% confidence).

2.4.3 A Barometer with serial data output will be provided by EPA for incorporation into the environmental control.

2.4.4 Compatibility with existing Filter Room Monitoring System (FRMS). The Filter Room Control System (FRCS) shall monitor at a frequency that will enable it to control temperatures and humidity per the performance criteria listed in sections 2.3.2.1 through 2.3.2.3. The following interface requirements must be met by the FRCS.

2.4.4.1 The EPA Filter Room Monitor System (FRMS) computer will perform any required data averaging for purposes of reporting.

2.4.4.2 An RS232 output of environmental parameters from the FRCS shall be available for the EPA's FRMS at a minimum data rate frequency of 2 Hertz.

2.4.4.3 The existing software receives Dry Bulb, Dew Point and Humidity at 2 Hz through one serial port and Pressure through a second serial port. Use of the RS232 port or Analog signals by the EPA filter room monitor computer shall have no adverse effects on the Control System.

2.5 Fire Suppression – Existing system to be used. No modification required.

2.6 Software - The vender shall specify and provide software for the FRCS if required.

2.6.1 Software, if required by the FRCS, shall be developed using commercially available programs such as Labview or Visual Basic. A copy of all code developed for this project shall provided by the contractor. Supplied software should allow Visual Basic or an Oracle database to query for most recent 5 min. average values for the parameters listed in section 2.3.2.

2.7 - Interface Requirements for the FRMS

2.7.1 Hardware requirements for data supplied to the FRMS.

2.7.1 For an optional analog interface:
The dewpoint and temperature monitors shall be equipped with three 4 to 20 mA current outputs. These 2-wire channels must be powered with 12 to 28 VDC external power supplies (not provided). The analog outputs are galvanically isolated from electronics but they are not isolated from each other. A separate (isolated) power supply is required for each analog channel. Analog output signals for access to ambient temperatures and humidity shall be optically isolated so that FCMS access shall not have any adverse impacts on the FRCS.

2.7.2 For the required serial interface:
The dewpoint and temperature monitors shall provide serial data at the required frequency using a serial cable. Data values shall be delimited or labeled in the communication stream so that values may be parsed from the communication string by FCMS computer software.

2.8 - Acceptance Test Requirements

2.8.1 Data logged by the EPA supplied FRMS shall be evaluated for a period of one week to verify FRCS functionality per the performance criteria listed in sections 2.3.2.1 through 2.3.2.3 and section 2.4.

3.0 Consumable Supplies

The contractor shall provide a supply of consumeable items sufficient for at least one year of operation.

3.1 The contractor shall offer an option to purchase an additional one year's worth of consumable items. Items shall be offered on a line item basis.

3.2 The contractor shall offer an option for a maintenance contract for the HVAC on a per-year basis, renewable for up to 4 years.

4.0 Site Visit

A site visit opportunity has been scheduled for Wednesday June 2nd at 1PM EDT at the installation site: US EPA, National Fuel and Vehicle Emission Laboratory, 2565 Plymouth Road, Ann Arbor, Michigan 48105. Please contact Bruce Cantrell at (734)214-4117 to express interest in attending and for any additional details regarding this opportunity.

Appendix B - EPA Supplied Filter Room Monitoring System (FRMS) Description.

1.0 Filter Room Monitoring Software

- Reads ambient weigh room parameters every two minutes via RS232.
- Logs ambient data to MS Access and Oracle.
  - MS Access every 2 minutes (temporary data base).
  - Oracle every 30 minutes.
- Logs filter room status events to MS Access and Oracle as they happen.
  - out of tolerance events
  - back in tolerance events

MS Access Tables are temporary - kept around long enough to ensure that Oracle is updated.

2.0 EPA's Oracle Database

- Stores subset of MS Access ambient conditions every 30 minutes.
- Stores MS Access ambient events as they happen.
  - out of tolerance events
  - back in tolerance events